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**K17-3922**

**Section: E**

**Coal Lab 4**

**Q2:**

INCLUDE Irvine32.inc

.DATA

arrayB BYTE 5,6,2

arrayW WORD 15,5, 0

arrayD DWORD 60,12,18

.CODE

main proc

mov ecx,2

mov eax,0

mov ebx,0

mov edx,0

mov esi,dword PTR offset arrayB

mov al,[esi]

mov esi,dword PTR offset arrayW

add bx,[esi]

mul ebx

mov esi,offset arrayD

add edx,[esi]

mul edx

call writedec

call crlf

mov eax,0

mov ebx,0

mov edx,0

mov esi,dword PTR offset arrayB

mov al,[esi+1]

mov esi,dword PTR offset arrayW

add bx,[esi+2]

mul ebx

mov esi,offset arrayD

add edx,[esi+4]

mul edx

call writedec

call crlf

mov eax,0

mov ebx,0

mov edx,0

mov esi,dword PTR offset arrayB

mov al,[esi+2]

mov esi,dword PTR offset arrayW

add bx,[esi+4]

mul ebx

mov esi,offset arrayD

add edx,[esi+8]

mul edx

call writedec

call crlf

exit

main endp

end main

**Q3:**

INCLUDE Irvine32.inc

.DATA

;z = x + y + w – v +u

z byte ?

x byte 2

y byte 3

w byte 4

v byte 5

u byte 6

.CODE

main proc

mov eax,0

mov al,x

add al,y

add al,w

add al,u

sub al,v

call writedec

call crlf

exit

main endp

end main

**Q4:**

INCLUDE Irvine32.inc

.DATA

array1 BYTE 10, 20, 30, 40

array2 WORD 4 DUP(?)

.CODE

main proc

mov eax,0

mov edx,0

mov esi,offset array1

mov ebx,offset array2

add ebx,6

mov ecx,4

L1:

mov al,[esi]

movzx dx,al

mov [ebx],dx

call writedec

call crlf

sub ebx,2

inc esi

loop L1

exit

main endp

end main